Question 1

Question Type: **MultipleChoice**

Which of the following devices is found in the middle tier of a three-tier network architecture?

Options:

A- Router

B- Multilayer switch

C- Access switch

D- Firewall

Answer:

B

Explanation:

In a three-tier network architecture, the middle tier is typically where the distribution layer resides, which connects network services to the access layer below and the core layer above.A multilayer switch operates at this level, providing routing, switching, and traffic management between subnets and VLANs.

Question 2

An older web server on a screened subnet is serving unencrypted web traffic. The server is not capable of serving HTTPS traffic directly but the firewall is capable of doing so. Which of the following should be done to encrypt all traffic coming into the web server from outside the network? (Select two).

Options:

A- A certificate should be installed on the server

B- Incoming port 80 traffic at the firewall should Be forwarded to port 443 on the server.

C- Incoming port 60 traffic at the firewall should be forwarded to port 80 on the server.

D- Incoming port 443 traffic at the firewall should be forwarded to port 80 on the server.

E- A certificate should be installed on the firewall

F- A proxy server should be Installed on the screened subnet.

Answer:

D, E

Explanation:

To secure the web traffic coming into an older web server that cannot handle HTTPS traffic, the firewall can be used to terminate the SSL connection. A certificate should be installed on the firewall to handle the encryption of traffic (port 443 is the default port for HTTPS traffic).The firewall can then forward the decrypted traffic to the web server on port 80, which is the default port for HTTP traffic.

Question 3

Question Type: MultipleChoice

A user is connecting a smartwatch to a smartphone for internet access. Which of the following network types is the user employing?

Options:

A- MAN

B- PAN

C- LAN

D- WLAN

Answer:

B

Question 4

Question Type: **MultipleChoice**

A network administrator will be running Ethernet cables through raised ceilings. Which of the following types of Ethernet cables is the safest solution?

Options:

A- Shielded

B- Plenum

C- Unshielded

D- Riser

Answer:

B

Explanation:

When running Ethernet cables through raised ceilings, plenum-rated cables are the safest option.They are designed to slow the spread of flames and reduce the amount of toxic smoke produced during a fire, making them suitable for spaces with airflow for heating and air conditioning systems.Reference:CompTIA Network+ Certification Exam Objectives

Question 5

Question Type: **MultipleChoice**

A technician troubleshoots user reports about high latency while trying to access some of the web servers. Which of the following would be the best way for the technician to identify the issue?

Options:

A- Use NetFlow on an edge device to view all traffic data.

B- Use nslookup and dig to Identify issues.

C- Use ping, nmop, and traceroute.

D- Use Wireshark and tcpdump on users' devices to log all data.

Answer:

C

Explanation:

To troubleshoot high latency issues when accessing web servers, a technician should use tools like ping, nmap, and traceroute. Ping can verify the reachability of a server and measure round-trip time. Nmap can scan for open ports and detect services running on the server.Traceroute can identify the path traffic takes to reach the server and pinpoint where delays occur.Reference:CompTIA Network+ Certification Exam Objectives1.

Question 6

Question Type: **MultipleChoice**

Which of the following synchronizes time on all devices within a network?

Options:

A- DHCP

B- DNS

C- NTP

D- SNMP

Answer:

C

Explanation:

Network Time Protocol (NTP): NTP is a widely adopted protocol for synchronizing clocks across network devices. It ensures that all devices have accurate and consistent time. NTP uses a hierarchical system of time sources to maintain synchronization.

Professor Messer - Network+ Certification Course

CompTIA Network+ N10-008 Study Guide

Auvik - Network Time Synchronization: Why and How It Works

Question 7

A packet has a destination address that is located outside of the local network. Which of the following should be used to route this packet out of the local network?

Options:

A- DNS server

B- Load balancer

C- DHCP server

D- Default gateway

Answer:

D

Explanation:

Default Gateway: The default gateway is the IP address of the router that connects the local network to external networks (such as the internet). When a packet's destination address is outside the local network, it is sent to the default gateway for further routing.

Professor Messer - Network+ Certification Course

Studocu - To route a packet outside the local network, a packet must be generated at the network layer

Question 8

Question Type: **MultipleChoice**

A! which of the following layers of the OSI model can switches operate? (Select two).

Options:

A- Layer 1

B- Layer 2

C- Layer 3

D- Layer 4

E- Layer 5

F- Layer 6

Answer:

B, C

Explanation:

Switches operate atLayer 2andLayer 3of the OSI model. Here's a brief explanation for each layer:

Layer 2 (Data Link Layer):

Switches primarily operate at this layer.

They use MAC addresses to forward frames within a local network (LAN).

Switches create and maintain MAC address tables to make forwarding decisions.

Examples of switches include Ethernet switches and VLAN switches.

Layer 3 (Network Layer):

Some advanced switches (known asLayer 3 switches) can perform routing functions.

Layer 3 switches can route traffic between different subnets within the same LAN.

They use IP addresses to make routing decisions.

Layer 3 switches combine the features of switches and routers.

Question 9

Question Type: **MultipleChoice**

A user is experiencing network connectivity issues. Upon investigation, the engineer learns that the user installed a personal router and switch to use (or multiple computers in the department. Which of the following has the user most likely introduced into the network?

Options:

A- Broadcast storms

B- Collisions

C- Rogue DHCP server

D- DNS poisoning

Answer:

C

Explanation:

When a personal router and switch are installed on a network without proper configuration, they can act as a Rogue DHCP server.This means the router could start assigning IP addresses to devices on the network, which can lead to IP address conflicts and connectivity issues

Question 10

Question Type: **MultipleChoice**

Which of the following OSI layers is ICMP a part of?

Options:

A- Application

B- Session

C- Network

D- Transport

Answer:

C

Explanation:

ICMP, or Internet Control Message Protocol, is part of the Network layer (Layer 3) in the OSI model. It operates at a level that handles the communication between different networks.ICMP is used for sending error messages and operational information indicating the status of the network

Question 11

A technician is troubleshooting a SQL database connection. After remotely connecting to the end client, the technician tests basic connectivity. Which of the following ports is available to connect via command-line interface?

Options:

A- 143

B- 445

C- 993

D- 1521

Answer:

D

Explanation:

The correct port available for connecting to a SQL database via command-line interface isD. 1521. Port 1521 is the default port for Oracle Database connections using the Oracle Net Services (SQL*Net) protocol.

Port 143: This is used for IMAP (Internet Message Access Protocol) communication.

Port 445: This is used for Microsoft's SMB (Server Message Block) protocol (file and printer sharing).

Port 993: This is used for secure IMAP (IMAPS) communication.

Port 1521: This is the default port for Oracle Database connections using the Oracle Net Services (SQL*Net) protocol.